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Experiment No. 2

Aim: Study on Cognitive Computing

Theory:

Cognitive computing is a self-learning system that uses Machine Learning and Data Mining algorithms, Neural Networks, and Visual Recognition to perform human-like tasks intelligently. Cognitive computing focuses on mimicking human behaviour and reasoning to solve complex problems. It learns at scale, reason with purpose, and interacts with humans naturally. Cognitive Computing methods mostly rely on Deep Learning methods and Neural Networks. It understands the language, recognizes objects, text, face, and scenes and also recognizes the voice and interacts with humans and other machines without much fuss.

Advantages of Cognitive Computing:

- Accurate Data Analysis
- Leaner & More Efficient Business Processes
- Improved Customer Interaction

Applications of Cognitive Computing

Retail Industry
Cognitive Computing will help retailers to provide customers personalized products – what they want, when they want, and how they want to derive meaningful experiences, opportunities to reduce the wastage and losses by providing the fresh products by predicting the demand priorly, and by automating areas it will reduce the cycle time, effort and improve the efficiency.

Banking and Finance

Cognitive banking will provide customized support to the customers, it will help in deciding personalized investment plans based on the customer being risk-averse or risk-taker. Also, it will provide personalized engagement between the financial institution and the customer by dealing in the individual fashion with each customer and focusing on their requirements. Here, the computer will intelligently understand the personality of the customer based on the other content available online authored by the customer.

Eg: Challenge: Providing accurate, fact-based investment recommendations to financial managers

Cyber Security

Cognitive Algorithms provides end-to-end security platforms and detects, assesses, researches, and remediate the threats. It will help to prevent cyber Attacks (or cognitive hacking), this will make customers less vulnerable to manipulation as well as provide a technical solution to detect any misleading data and disinformation.

Education

A cognitive assistant can provide personal tutorials to students, guide them through the coursework, and can also help students to understand certain critical concepts at their own pace. It can also guide students in selecting the courses depending upon their interest. It can act as a career counsellor. Cognitive computing will not only help students but will also help teachers, support staff, and administrative staff for delivering better service, preparing student reports and feedback.

Conclusion:

Studied the concept of Cognitive computing